

Message

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**From:** Aubee, Catherine [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=18E81C76BBA145F1948ED5641919DEB1-AUBEE, CATHERINE]  
**Sent:** 9/17/2020 3:43:41 PM  
**To:** Siedschlag, Gregory [Siedschlag.Gregory@epa.gov]  
**CC:** Messina, Edward [Messina.Edward@epa.gov]; Keigwin, Richard [Keigwin.Richard@epa.gov]  
**Subject:** RE: FYSA: PFAS detection in pesticide used for recent mosquito aerial spraying in Mass  
**Attachments:** INTERNAL RD PFAS summary 2020-09-17.docx

Just sent it but reattaching here. The audience for this was EPA mgt to provide a heads up about previous inquiries; I added a note about the recent question but any details will need to come from the email string.

Let me know how else we can help.

Best,  
Catherine

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**From:** Siedschlag, Gregory <Siedschlag.Gregory@epa.gov>  
**Sent:** Thursday, September 17, 2020 11:39 AM  
**To:** Aubee, Catherine <Aubee.Catherine@epa.gov>  
**Cc:** Messina, Edward <Messina.Edward@epa.gov>; Keigwin, Richard <Keigwin.Richard@epa.gov>  
**Subject:** RE: FYSA: PFAS detection in pesticide used for recent mosquito aerial spraying in Mass

Catherine – I just responded back to R1 that we would draft the statement. Once I get the one-pager from you I'll have someone here get started on it.

**Greg Siedschlag**  
Chief, Communication Services Branch  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Phone: (703) 603-9044  
Cell: (571) 319-7949  
<https://www.epa.gov/pesticides>  
*pronouns: he/him/his*

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**From:** Aubee, Catherine <Aubee.Catherine@epa.gov>  
**Sent:** Thursday, September 17, 2020 10:56 AM  
**To:** Siedschlag, Gregory <Siedschlag.Gregory@epa.gov>; Messina, Edward <Messina.Edward@epa.gov>; Keigwin, Richard <Keigwin.Richard@epa.gov>  
**Cc:** Matuszko, Jan <Matuszko.Jan@epa.gov>; Goodis, Michael <Goodis.Michael@epa.gov>; Layne, Arnold <Layne.Arnold@epa.gov>; Lowit, Anna <Lowit.Anna@epa.gov>; Dawson, Jeffrey <Dawson.Jeff@epa.gov>; Vogel, Dana <Vogel.Dana@epa.gov>; Wilbur, Donald <Wilbur.Donald@epa.gov>; Dinkins, Darlene <Dinkins.Darlene@epa.gov>  
**Subject:** RE: FYSA: PFAS detection in pesticide used for recent mosquito aerial spraying in Mass

I'm supportive of having R1 lead the desk statement. I will still share the one-pager with this group for awareness.

Best,  
Catherine

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**From:** Siedschlag, Gregory <Siedschlag.Gregory@epa.gov>  
**Sent:** Thursday, September 17, 2020 10:52 AM  
**To:** Messina, Edward <Messina.Edward@epa.gov>; Aubee, Catherine <Aubee.Catherine@epa.gov>; Keigwin, Richard <Keigwin.Richard@epa.gov>

**Cc:** Matuszko, Jan <[Matuszko.Jan@epa.gov](mailto:Matuszko.Jan@epa.gov)>; Goodis, Michael <[Goodis.Michael@epa.gov](mailto:Goodis.Michael@epa.gov)>; Layne, Arnold <[Layne.Arnold@epa.gov](mailto:Layne.Arnold@epa.gov)>; Lowit, Anna <[Lowit.Anna@epa.gov](mailto:Lowit.Anna@epa.gov)>; Dawson, Jeffrey <[Dawson.Jeff@epa.gov](mailto:Dawson.Jeff@epa.gov)>; Vogel, Dana <[Vogel.Dana@epa.gov](mailto:Vogel.Dana@epa.gov)>; Wilbur, Donald <[Wilbur.Donald@epa.gov](mailto:Wilbur.Donald@epa.gov)>; Dinkins, Darlene <[Dinkins.Darlene@epa.gov](mailto:Dinkins.Darlene@epa.gov)>  
**Subject:** RE: FYSA: PFAS detection in pesticide used for recent mosquito aerial spraying in Mass

Why don't we either get R1's desk statement and react to it or we could tell them that we'll draft something and send their way. Just want to make sure we aren't duplicating effort.

**Greg Siedschlag**

Chief, Communication Services Branch  
Office of Pesticide Programs  
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Phone: (703) 603-9044  
Cell: (571) 319-7949  
<https://www.epa.gov/pesticides>  
*pronouns: he/him/his*

---

**From:** Messina, Edward <[Messina.Edward@epa.gov](mailto:Messina.Edward@epa.gov)>

**Sent:** Thursday, September 17, 2020 10:43 AM

**To:** Aubee, Catherine <[Aubee.Catherine@epa.gov](mailto:Aubee.Catherine@epa.gov)>; Siedschlag, Gregory <[Siedschlag.Gregory@epa.gov](mailto:Siedschlag.Gregory@epa.gov)>; Keigwin, Richard <[Keigwin.Richard@epa.gov](mailto:Keigwin.Richard@epa.gov)>

**Cc:** Matuszko, Jan <[Matuszko.Jan@epa.gov](mailto:Matuszko.Jan@epa.gov)>; Goodis, Michael <[Goodis.Michael@epa.gov](mailto:Goodis.Michael@epa.gov)>; Layne, Arnold <[Layne.Arnold@epa.gov](mailto:Layne.Arnold@epa.gov)>; Lowit, Anna <[Lowit.Anna@epa.gov](mailto:Lowit.Anna@epa.gov)>; Dawson, Jeffrey <[Dawson.Jeff@epa.gov](mailto:Dawson.Jeff@epa.gov)>; Vogel, Dana <[Vogel.Dana@epa.gov](mailto:Vogel.Dana@epa.gov)>; Wilbur, Donald <[Wilbur.Donald@epa.gov](mailto:Wilbur.Donald@epa.gov)>; Dinkins, Darlene <[Dinkins.Darlene@epa.gov](mailto:Dinkins.Darlene@epa.gov)>

**Subject:** RE: FYSA: PFAS detection in pesticide used for recent mosquito aerial spraying in Mass

Product is Anvil. Can we pull label and CSF? Are there related PFAS chemicals is the question. Clark Company in Region 5 is distributor. Maybe plastic drums have PFAS is one of the theories. There could be a news story on this in Boston, so a desk statement would be appropriate. Region 1 is pulling some materials together as well.

Ed

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Ed Messina, Esq.  
Acting Office Director  
Office of Pesticide Programs  
Office of Chemical Safety & Pollution Prevention  
U.S. Environmental Protection Agency  
Washington, D.C.  
p: (703) 347-0209

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**From:** Aubee, Catherine <[Aubee.Catherine@epa.gov](mailto:Aubee.Catherine@epa.gov)>

**Sent:** Thursday, September 17, 2020 10:35 AM

**To:** Siedschlag, Gregory <[Siedschlag.Gregory@epa.gov](mailto:Siedschlag.Gregory@epa.gov)>; Keigwin, Richard <[Keigwin.Richard@epa.gov](mailto:Keigwin.Richard@epa.gov)>

**Cc:** Messina, Edward <[Messina.Edward@epa.gov](mailto:Messina.Edward@epa.gov)>; Matuszko, Jan <[Matuszko.Jan@epa.gov](mailto:Matuszko.Jan@epa.gov)>; Goodis, Michael <[Goodis.Michael@epa.gov](mailto:Goodis.Michael@epa.gov)>; Layne, Arnold <[Layne.Arnold@epa.gov](mailto:Layne.Arnold@epa.gov)>; Lowit, Anna <[Lowit.Anna@epa.gov](mailto:Lowit.Anna@epa.gov)>; Dawson, Jeffrey <[Dawson.Jeff@epa.gov](mailto:Dawson.Jeff@epa.gov)>; Vogel, Dana <[Vogel.Dana@epa.gov](mailto:Vogel.Dana@epa.gov)>; Wilbur, Donald <[Wilbur.Donald@epa.gov](mailto:Wilbur.Donald@epa.gov)>; Dinkins, Darlene <[Dinkins.Darlene@epa.gov](mailto:Dinkins.Darlene@epa.gov)>

**Subject:** RE: FYSA: PFAS detection in pesticide used for recent mosquito aerial spraying in Mass

Limiting this email to OPP and Rick – we have an internal draft one-pager in response to a previous inquiry that may be helpful to you in developing the desk statement. I will dust it off and send it around.

Best,

Catherine

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**From:** Barmakian, Nancy <[Barmakian.Nancy@epa.gov](mailto:Barmakian.Nancy@epa.gov)>

**Sent:** Thursday, September 17, 2020 10:31 AM

**To:** Siedschlag, Gregory <[Siedschlag.Gregory@epa.gov](mailto:Siedschlag.Gregory@epa.gov)>; Aubee, Catherine <[Aubee.Catherine@epa.gov](mailto:Aubee.Catherine@epa.gov)>; Keigwin, Richard <[Keigwin.Richard@epa.gov](mailto:Keigwin.Richard@epa.gov)>

**Cc:** Messina, Edward <[Messina.Edward@epa.gov](mailto:Messina.Edward@epa.gov)>; Matuszko, Jan <[Matuszko.Jan@epa.gov](mailto:Matuszko.Jan@epa.gov)>; Goodis, Michael <[Goodis.Michael@epa.gov](mailto:Goodis.Michael@epa.gov)>; Layne, Arnold <[Layne.Arnold@epa.gov](mailto:Layne.Arnold@epa.gov)>; Lowit, Anna <[Lowit.Anna@epa.gov](mailto:Lowit.Anna@epa.gov)>; Dawson, Jeffrey <[Dawson.Jeff@epa.gov](mailto:Dawson.Jeff@epa.gov)>; Vogel, Dana <[Vogel.Dana@epa.gov](mailto:Vogel.Dana@epa.gov)>; Wilbur, Donald <[Wilbur.Donald@epa.gov](mailto:Wilbur.Donald@epa.gov)>; Dinkins, Darlene <[Dinkins.Darlene@epa.gov](mailto:Dinkins.Darlene@epa.gov)>; Norcross, Jeffrey <[Norcross.Jeffrey@epa.gov](mailto:Norcross.Jeffrey@epa.gov)>; Deegan, Dave <[Deegan.Dave@epa.gov](mailto:Deegan.Dave@epa.gov)>

**Subject:** RE: FYSA: PFAS detection in pesticide used for recent mosquito aerial spraying in Mass

Our RA just asked for a desk statement. Looping in Jeff Norcross and Dave Deegan from our office. Thank you.

Nancy

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**From:** Siedschlag, Gregory <[Siedschlag.Gregory@epa.gov](mailto:Siedschlag.Gregory@epa.gov)>

**Sent:** Thursday, September 17, 2020 10:26 AM

**To:** Aubee, Catherine <[Aubee.Catherine@epa.gov](mailto:Aubee.Catherine@epa.gov)>; Keigwin, Richard <[Keigwin.Richard@epa.gov](mailto:Keigwin.Richard@epa.gov)>

**Cc:** Messina, Edward <[Messina.Edward@epa.gov](mailto:Messina.Edward@epa.gov)>; Barmakian, Nancy <[Barmakian.Nancy@epa.gov](mailto:Barmakian.Nancy@epa.gov)>; Matuszko, Jan <[Matuszko.Jan@epa.gov](mailto:Matuszko.Jan@epa.gov)>; Goodis, Michael <[Goodis.Michael@epa.gov](mailto:Goodis.Michael@epa.gov)>; Layne, Arnold <[Layne.Arnold@epa.gov](mailto:Layne.Arnold@epa.gov)>; Lowit, Anna <[Lowit.Anna@epa.gov](mailto:Lowit.Anna@epa.gov)>; Dawson, Jeffrey <[Dawson.Jeff@epa.gov](mailto:Dawson.Jeff@epa.gov)>; Vogel, Dana <[Vogel.Dana@epa.gov](mailto:Vogel.Dana@epa.gov)>; Wilbur, Donald <[Wilbur.Donald@epa.gov](mailto:Wilbur.Donald@epa.gov)>; Dinkins, Darlene <[Dinkins.Darlene@epa.gov](mailto:Dinkins.Darlene@epa.gov)>

**Subject:** RE: FYSA: PFAS detection in pesticide used for recent mosquito aerial spraying in Mass

Should we develop a desk statement? I could see us getting press questions about this.

**Greg Siedschlag**

Chief, Communication Services Branch

Office of Pesticide Programs

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*pronouns: he/him/his*

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**From:** Aubee, Catherine <[Aubee.Catherine@epa.gov](mailto:Aubee.Catherine@epa.gov)>

**Sent:** Thursday, September 17, 2020 7:45 AM

**To:** Keigwin, Richard <[Keigwin.Richard@epa.gov](mailto:Keigwin.Richard@epa.gov)>

**Cc:** Messina, Edward <[Messina.Edward@epa.gov](mailto:Messina.Edward@epa.gov)>; Barmakian, Nancy <[Barmakian.Nancy@epa.gov](mailto:Barmakian.Nancy@epa.gov)>; Matuszko, Jan <[Matuszko.Jan@epa.gov](mailto:Matuszko.Jan@epa.gov)>; Goodis, Michael <[Goodis.Michael@epa.gov](mailto:Goodis.Michael@epa.gov)>; Layne, Arnold <[Layne.Arnold@epa.gov](mailto:Layne.Arnold@epa.gov)>; Lowit, Anna <[Lowit.Anna@epa.gov](mailto:Lowit.Anna@epa.gov)>; Dawson, Jeffrey <[Dawson.Jeff@epa.gov](mailto:Dawson.Jeff@epa.gov)>; Vogel, Dana <[Vogel.Dana@epa.gov](mailto:Vogel.Dana@epa.gov)>; Wilbur, Donald <[Wilbur.Donald@epa.gov](mailto:Wilbur.Donald@epa.gov)>; Siedschlag, Gregory <[Siedschlag.Gregory@epa.gov](mailto:Siedschlag.Gregory@epa.gov)>; Dinkins, Darlene <[Dinkins.Darlene@epa.gov](mailto:Dinkins.Darlene@epa.gov)>

**Subject:** Re: FYSA: PFAS detection in pesticide used for recent mosquito aerial spraying in Mass

Hi Rick,

Thanks for looping us in; that is correct. From the email chain it looks like they also detected a PFAS in the sample blanks which suggests (as noted) a contamination issue with the analytical equipment. But please do keep us informed.

Best,

Catherine

Associate Director

On Sep 16, 2020, at 6:06 PM, Keigwin, Richard <[Keigwin.Richard@epa.gov](mailto:Keigwin.Richard@epa.gov)> wrote:

The Registration Division has looked into the issue of whether there are any PFAS active ingredients or inerts multiple times. I've cc'd Catherine Aubee who has the most up-to-date information but my understanding is that none of the currently-registered AIs and approved inerts are PFAS compounds.

Rick Keigwin  
Acting Deputy Assistant Administrator for Management  
Office of Chemical Safety and Pollution Prevention  
U.S. Environmental Protection Agency  
Phone: 202-564-2910  
Sent from my iPhone (Please excuse typos!)

On Sep 16, 2020, at 5:59 PM, Messina, Edward <[Messina.Edward@epa.gov](mailto:Messina.Edward@epa.gov)> wrote:

Jan or Dana,

I seem to recall a question coming up a while ago about whether there was any connection between PFAS and pesticides. Can someone help Nancy with this issue? Probably something I will want to highlight to Alex next week.

Ed

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Ed Messina, Esq.  
Acting Office Director  
Office of Pesticide Programs  
Office of Chemical Safety & Pollution Prevention  
U.S. Environmental Protection Agency  
Washington, D.C.  
p: (703) 347-0209

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**From:** Barmakian, Nancy <[Barmakian.Nancy@epa.gov](mailto:Barmakian.Nancy@epa.gov)>  
**Sent:** Wednesday, September 16, 2020 5:39 PM  
**To:** Keigwin, Richard <[Keigwin.Richard@epa.gov](mailto:Keigwin.Richard@epa.gov)>; Messina, Edward <[Messina.Edward@epa.gov](mailto:Messina.Edward@epa.gov)>  
**Subject:** FW: FYSA: PFAS detection in pesticide used for recent mosquito aerial spraying in Mass

I left you both a vm. Forwarding the email I sent to Dennis and Deb about potential PFAS in pesticide used in aerial spraying in MA. We don't have all of the details yet but are looking to see if you have heard of this issue anywhere else. Has anyone ever tested pesticides for PFAS? We don't know if it is a container issue, a piping issue or formulation issue. Karen McGuire has given the R5 ECAD a heads up as the company is

in IL. We aren't asking them to do anything yet until we get more info from MA. Dennis is giving Alex a heads up and is also calling the commissioner to see if it is on his radar. We may not have much time as PEER took the original samples and was only waiting to go to press until MassDEP samples were complete (see details below).

We have a meeting scheduled with MDAR on Friday morning where we hope to get more detail about sampling and results. Thanks for any guidance you can provide.  
Nancy

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**From:** Barmakian, Nancy  
**Sent:** Wednesday, September 16, 2020 11:55 AM  
**To:** Deziel, Dennis <[Deziel.Dennis@epa.gov](mailto:Deziel.Dennis@epa.gov)>; Szaro, Deb <[Szaro.Deb@epa.gov](mailto:Szaro.Deb@epa.gov)>  
**Cc:** Moraff, Kenneth <[Moraff.Ken@epa.gov](mailto:Moraff.Ken@epa.gov)>; McGuire, Karen <[McGuire.Karen@epa.gov](mailto:McGuire.Karen@epa.gov)>; Chow, James <[chow.james@epa.gov](mailto:chow.james@epa.gov)>; Gutro, Doug <[Gutro.Doug@epa.gov](mailto:Gutro.Doug@epa.gov)>; Lombardo, Ginny <[Lombardo.Ginny@epa.gov](mailto:Lombardo.Ginny@epa.gov)>; Norcross, Jeffrey <[Norcross.Jeffrey@epa.gov](mailto:Norcross.Jeffrey@epa.gov)>; Carr, Stephanie <[Carr.Stephanie@epa.gov](mailto:Carr.Stephanie@epa.gov)>; Hayes, Sharon <[Hayes.Sharon@epa.gov](mailto:Hayes.Sharon@epa.gov)>  
**Subject:** FYSA: PFAS detection in pesticide used for recent mosquito aerial spraying in Mass

Dennis and Deb,  
Yesterday, Ken received a call from MassDEP about the detection of PFAS in the pesticide used in aerial spraying in MA. Massachusetts Department of Agricultural Resources (MDAR) made us aware of this issue on September 1 after PEER analyzed two samples of Anvil. MassDEP obtained their own samples for analysis at that time. See background below. Andrea Szylvian contacted MDAR this morning for an update. Mass received their sample results on Thursday, but did not contact EPA at that time because they were requested to first brief EOE who was going to brief the governor. It is our understanding that the PFAS was detected in the actual pesticide formulation, so MDAR suggested arranging with Region 5 to go to manufacturer, Clark Mosquito in IL, to collect a formulation sample from the manufacturer directly. We will be coordinating with ECAD on next steps.

I just wanted you to be aware of the situation. More to come.

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**From:** Carr, Stephanie <[Carr.Stephanie@epa.gov](mailto:Carr.Stephanie@epa.gov)>  
**Sent:** Tuesday, September 01, 2020 4:31 PM  
**To:** Norcross, Jeffrey <[Norcross.Jeffrey@epa.gov](mailto:Norcross.Jeffrey@epa.gov)>; Deegan, Dave <[Deegan.Dave@epa.gov](mailto:Deegan.Dave@epa.gov)>; Gutro, Doug <[Gutro.Doug@epa.gov](mailto:Gutro.Doug@epa.gov)>  
**Cc:** Lombardo, Ginny <[Lombardo.Ginny@epa.gov](mailto:Lombardo.Ginny@epa.gov)>; Barmakian, Nancy <[Barmakian.Nancy@epa.gov](mailto:Barmakian.Nancy@epa.gov)>; Chow, James <[chow.james@epa.gov](mailto:chow.james@epa.gov)>; Hayes, Sharon <[Hayes.Sharon@epa.gov](mailto:Hayes.Sharon@epa.gov)>; Wintrob, Paul <[Wintrob.Paul@epa.gov](mailto:Wintrob.Paul@epa.gov)>; Szylvian, Andrea M. <[Szylvian.Andrea@epa.gov](mailto:Szylvian.Andrea@epa.gov)>; Tham, Kan <[Tham.Kan@epa.gov](mailto:Tham.Kan@epa.gov)>  
**Subject:** FYSA: Info from MDAR re: PFAS detection in pesticide used for recent mosquito aerial spraying in Mass

Hello Doug, Jeff, and Dave –

We received a call from our Mass Dept. of Agricultural Resources counterpart, Taryn LaScola, today. Taryn alerted us that the environmental group PEER had two samples of Anvil, the pesticide used in the aerial spraying for mosquitoes MDAR performed in August, analyzed for PFAS and found low level detections. PFAS were also detected in

the sample blanks, indicating the detections could be associated with contamination in sample containers, analytical equipment, etc. Additional details are below.

Based on the information from MDAR, MassDEP is handling the follow-up on this, so you could direct inquiries from the public or press to MassDEP.

Please let me know if you have any questions.

Thank you, Stephanie

**Issue:**

Mosquito Aerial Applications of Anvil 10-10 ULV Southeastern MA to combat EEE

**Product Used:**

Anvil 10-10 ULV

EPA Reg: #1021-1688-8329 EPA Est: 8329-IL-01

Active Ingredients: Sumithrin

Piperonyl Butoxide

Adulticide

**User:** Clarke Mosquito Control is also registrant for product.

After 2019 use season for mosquito control, environmental NGOs were concerned about the application, based on the need, impacts, frequency of applications, and product applied.

In 2020 late winter/early spring, MDAR received inquiries about applications from environmental NGOs, citing the presence of PFAS in pesticides, to the Mass. Reclamation Board and the Mass. Department of Ag Resources Div. of Crop & Pest Services & state government.

Also in 2020, MA passed legislation to create a task force to review mosquito control in the Commonwealth.

MDAR contacted EPA R 1 in Feb 2020 requesting info as to the presence of PFAS in pesticides; EPA (Sharon Hayes) confirmed with HQ OPP (Sandra O'Neill) on April 13, 2020 that PFAS is not an ingredient in any currently registered FIFRA-registered products.

On Aug 10, 2020 an aerial mosquito application was made in Plymouth and parts of Bristol Counties in Massachusetts (see: <https://www.mass.gov/guides/eee-in-massachusetts>). Prior to the application, MDAR conducted an evaluation on the use of Anvil 10-10 ULV in response to env. groups concerns. To date, this application has been the only aerial application of the 2020 season.

MDAR also confirmed with Clarke Mosquito Control, Roselle, IL, the manufacturer of Anvil 10+10 UVL EPA Reg #1021-1688-8329, the product used for aerial spraying, that PFAS is not in the active or in the inert ingredients.

MDAR collected a sample of the product from the pesticide container before it was loaded into the plane for application, but did not analyze it for PFAS.

Last Friday, MDAR received a call from MassDEP (Anne Lowry and Mark Smith) informing them that Kayla Bennet of PEER had obtained two Anvil samples and had them analyzed for PFAS. Approximately 250 ppt and 450 ppt were detected in the samples. The control blank also came back positive, suggesting possible contamination of the sample.

MDAR said that the analytical lab is reputable and will run the sample again.

Kayla Bennet informed MassDEP that she is going to go public with the results (likely after the samples are re-run).

MassDEP are obtaining and running their own samples of Anvil 10-10 ULV.

MDAR has MassDEP handling any questions or statements on this issue. MADEP is not concerned about this from a risk perspective, but concerned about the accuracy of any information about this distributed in the press.

The MDAR state toxicologist reached out to Karen Larson, VP Product Innovation and Regulatory Affairs Clarke Mosquito Control which did not know of a source of PFAS, but is looking into whether it could be the product packaging or container lid. Any questions from EPA can be directed to:

Taryn LaScola, Director  
Crop and Pest Services Division  
Massachusetts Department of Agricultural Resources  
251 Causeway Street  
Boston, MA 02114  
(617)626-1776